

WHAT IS CLAIMED IS:

1. A process for preparing thermoplastic transparent resin comprising

the steps of:

- 5 i) preparing graft transparent resin by grafting a monomer mixture comprising 20 to 50 parts by weight of conjugated diene rubber latex, 10 to 50 parts by weight of methacrylic acid alkylester compound or acrylic acid alkylester compound, 5 to 25 parts by weight of aromatic vinyl compound, and 1 to 10 parts by weight of vinylcyan compound through emulsion polymerization;
- 10 ii) preparing methylmethacrylate-styrene-acrylonitrile (MSAN) copolymer by copolymerizing 50 to 75 parts by weight of methacrylic acid alkylester compound or alkylester compound, 20 to 45 parts by weight of aromatic vinyl compound, and 1 to 10 parts by weight of vinylcyan compound during bulk polymerization; and
- 15 iii) blending the graft transparent resin of step i) with the MSAN copolymer of step ii).

2. The process for preparing thermoplastic transparent resin according to claim 1, wherein a difference of refractive index between the 20 conjugated diene rubber latex and monomer mixture grafted is within the range of 0.004.

3. The process for preparing thermoplastic transparent resin according to claim 1, wherein a difference of refractive index between the

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conjugated diene rubber latex and MSAN copolymer is within the range of 0.004.

4. The process for preparing thermoplastic transparent resin according to claim 1, wherein the conjugated diene rubber latex is an
5 aliphatic conjugated diene compound, or a mixture of an aliphatic conjugated diene compound and an ethylene based unsaturated monomer.

5. The process for preparing thermoplastic transparent resin according to claim 1, wherein the conjugated diene rubber latex has an average particle diameter of 2000 to 5000 Å, a gel content of 70 to 95%,
10 and a swelling index of 12 to 30.

6. The process for preparing thermoplastic transparent resin according to claim 1, wherein the methacrylic acid alkylester compound or acrylic acid alkylester compound is methylmethacrylate.

7. The process for preparing thermoplastic transparent resin
15 according to claim 1, wherein the aromatic vinyl compound is a compound selected from the group consisting of styrene, α -methylstyrene, o -ethylstyrene, p -ethylstyrene, and vinyltoluene.

8. The process for preparing thermoplastic transparent resin according to claim 1, wherein the vinylcyan compound is a compound
20 selected from the group consisting of acrylonitrile, methacrylonitrile, and ethacrylonitrile.

9. The process for preparing thermoplastic transparent resin according to claim 1, wherein the emulsion polymerization of step i) is

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carried out using a mixture of one or more emulsifiers selected from the group consisting of alkylaryl sulfonate salts, alkali methylalkyl sulfate salts, and sulfonated alkylester salts.

10. The process for preparing thermoplastic transparent resin
5 according to claim 1, wherein the emulsion polymerization of step i) and bulk polymerization of step ii) are carried out using one or more polymerization initiators selected from the group consisting of cumene hydroperoxide, diisopropylbenzene hydroperoxide, and persulfate.

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